FIG. 1
(Prior Art)

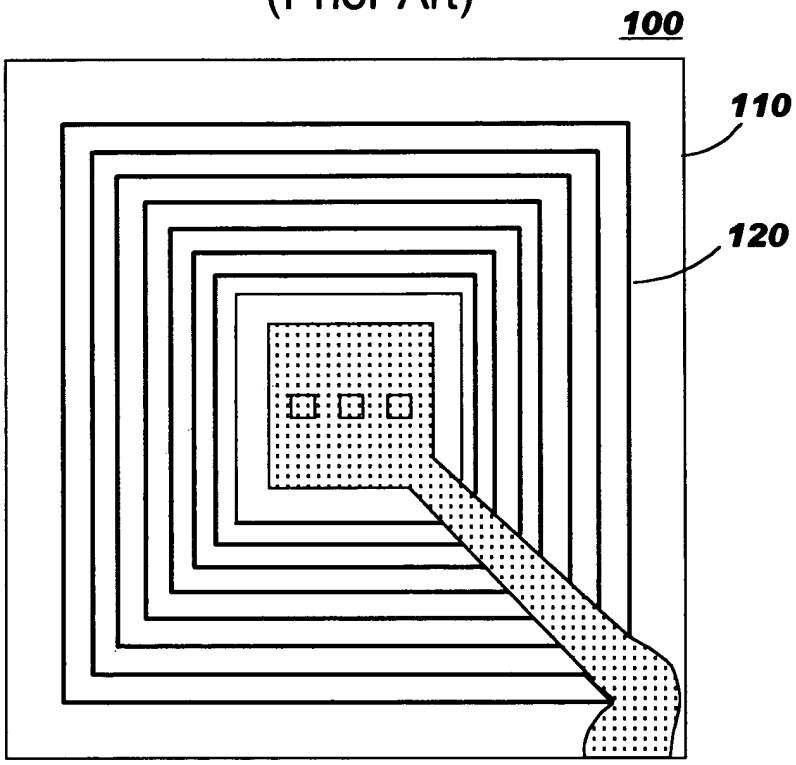

FIG. 2
(Prior Art)

JOHN E DOE

Valued customer since 2001

Customer # 123ABC456

FIG. 3A

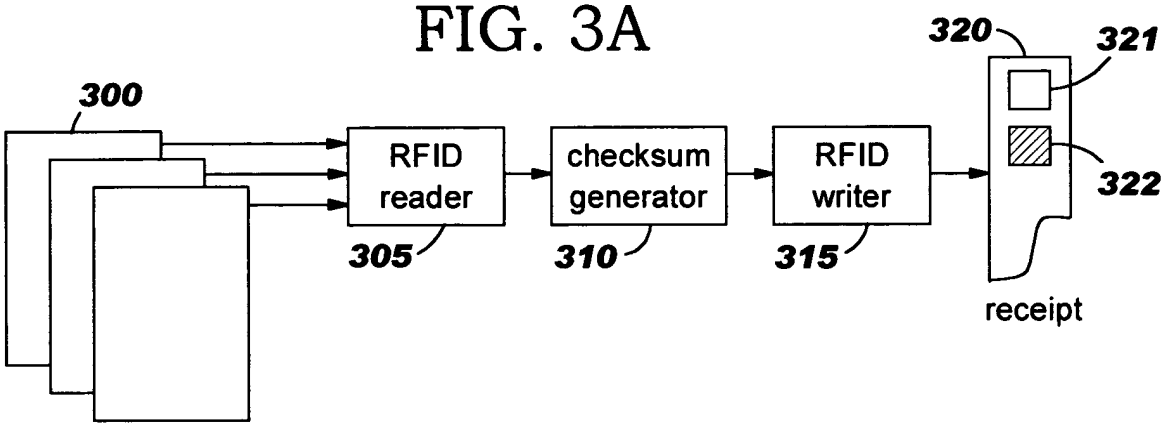
300
RFID reader
305
checksum generator
310
RFID writer
315
320
321
322
receipt

FIG. 3B

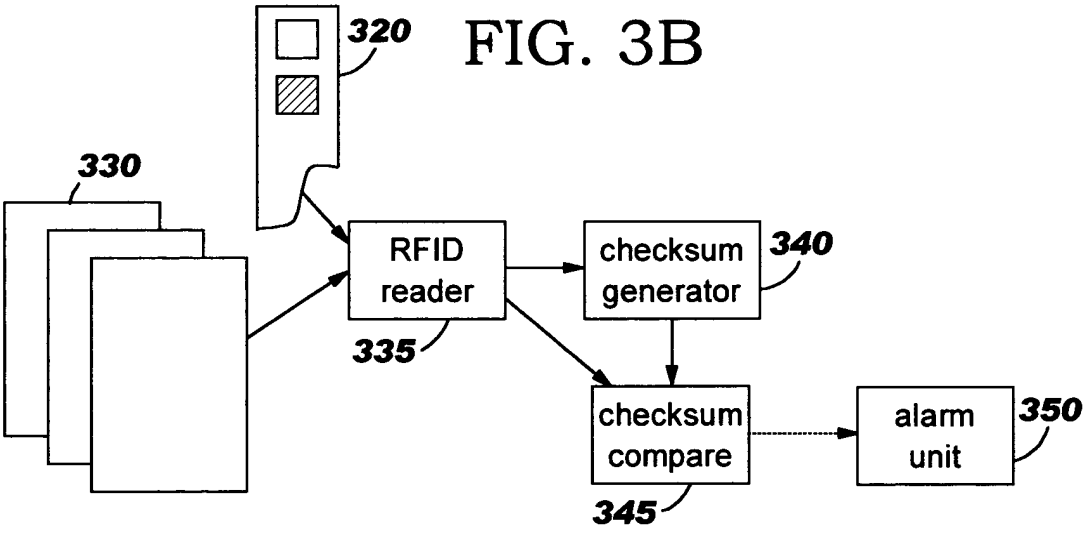
320
330
RFID reader
335
checksum generator
340
checksum compare
345
alarm unit
350

FIG. 4A

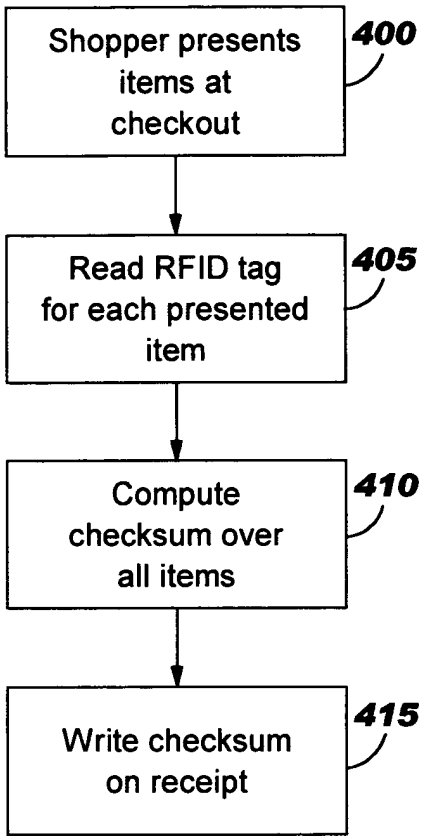
Shopper presents items at checkout
400
Read RFID tag for each presented item
405
Compute checksum over all items
410
Write checksum on receipt
415

FIG. 4B

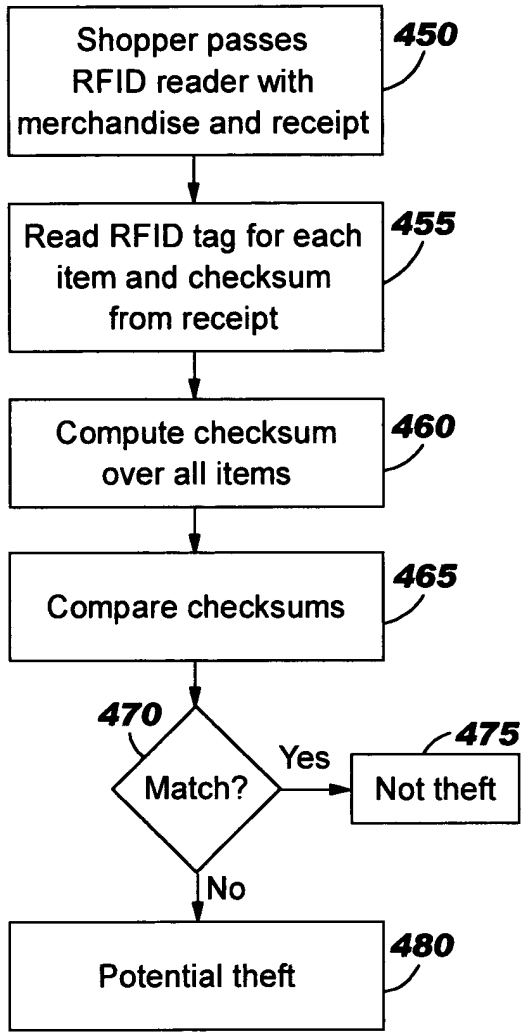
Shopper passes RFID reader with merchandise and receipt
450
Read RFID tag for each item and checksum from receipt
455
Compute checksum over all items
460
Compare checksums
465
470
Match?
Yes
475
Not theft
No
Potential theft
480

FIG. 5A

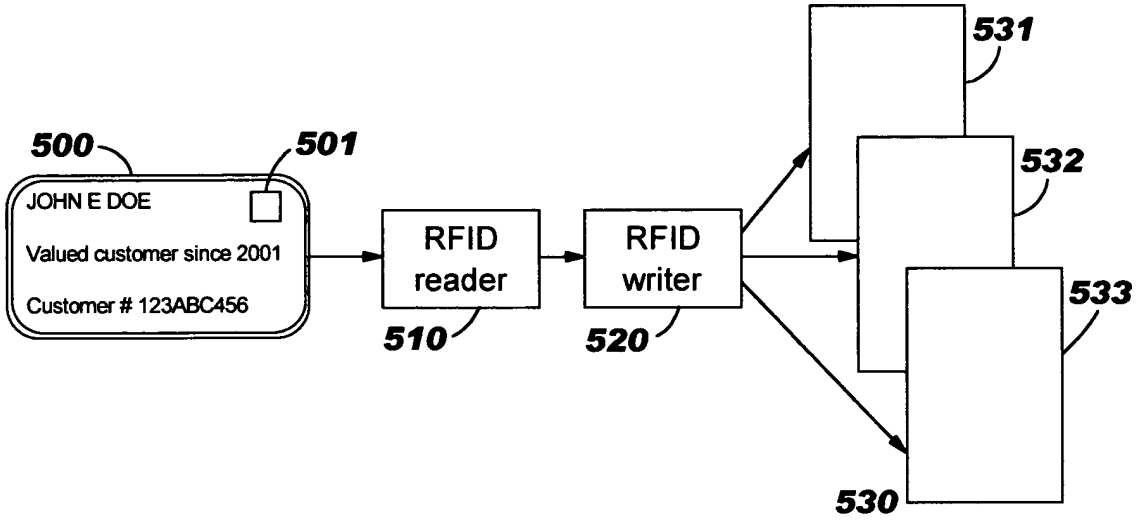
500
501
JOHN E DOE
Valued customer since 2001
Customer # 123ABC456
RFID reader
510
RFID writer
520
531
532
533
530

FIG. 5B

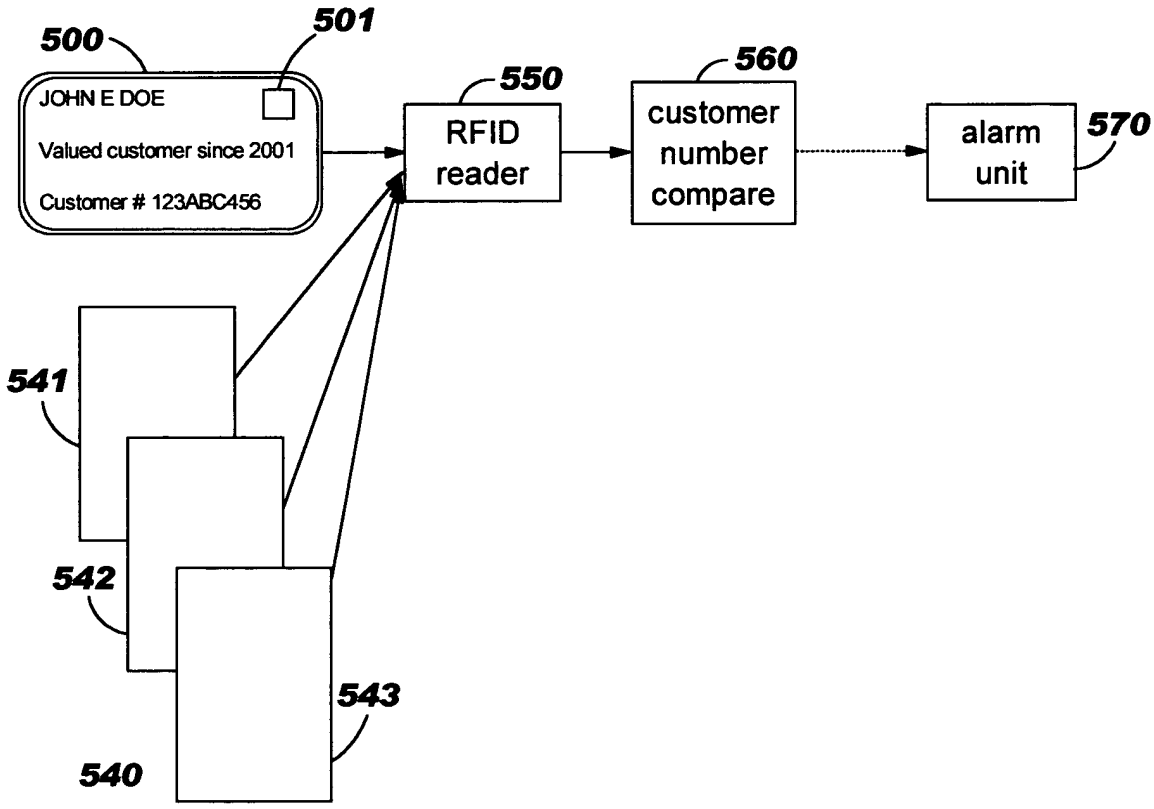
500
501
JOHN E DOE
Valued customer since 2001
Customer # 123ABC456
550
RFID reader
560
customer number compare
alarm unit
570
541
542
543
540

FIG. 6A

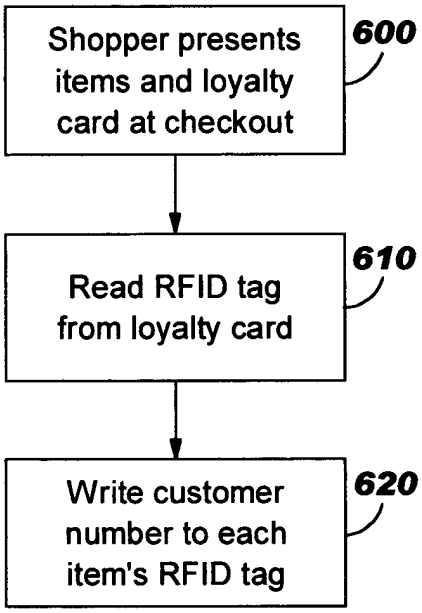
Shopper presents items and loyalty card at checkout
600
Read RFID tag from loyalty card
610
Write customer number to each item's RFID tag
620

FIG. 6B

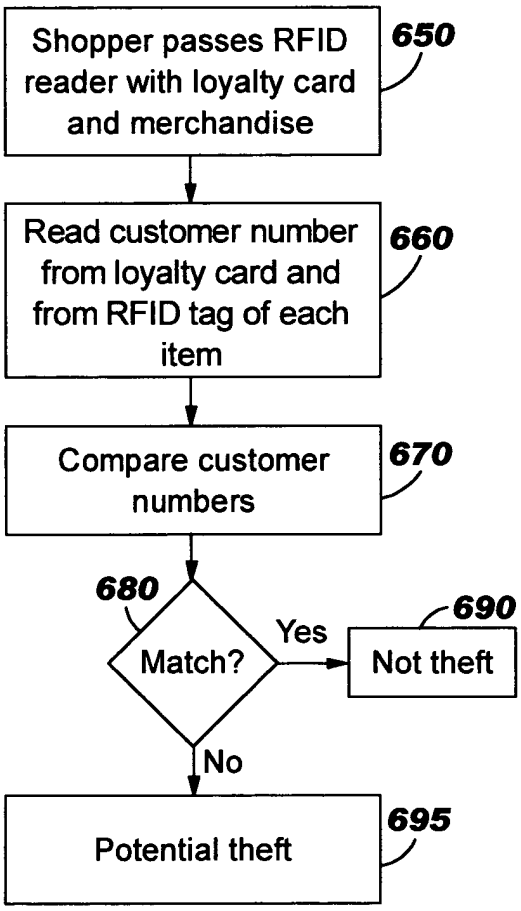
Shopper passes RFID reader with loyalty card and merchandise
650
Read customer number from loyalty card and from RFID tag of each item
660
Compare customer numbers
670
680
Match?
Yes
690
Not theft
No
Potential theft
695

FIG. 7A

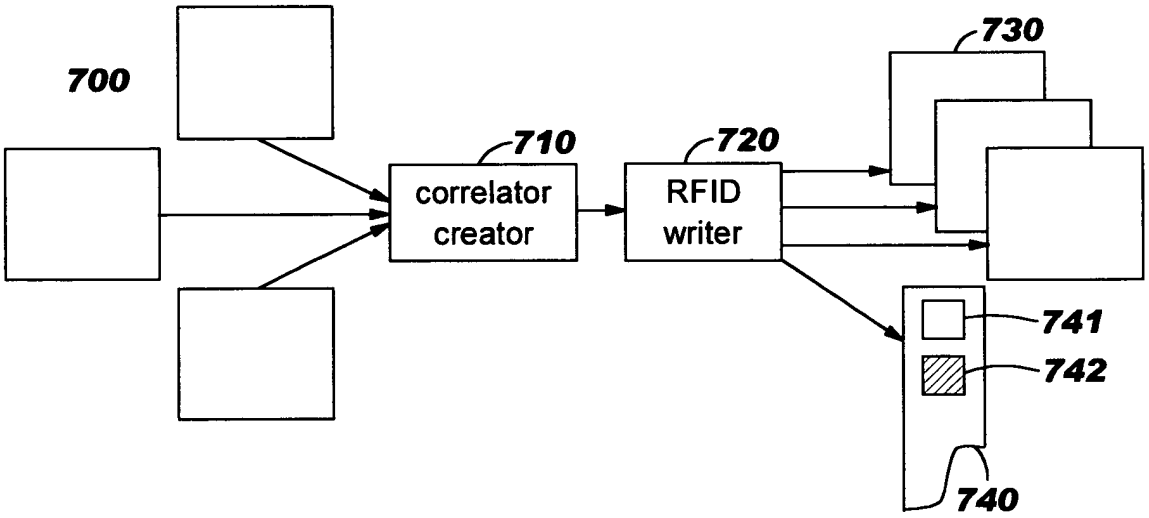
700
710
correlator creator
720
RFID writer
730
741
742
740

FIG. 7B

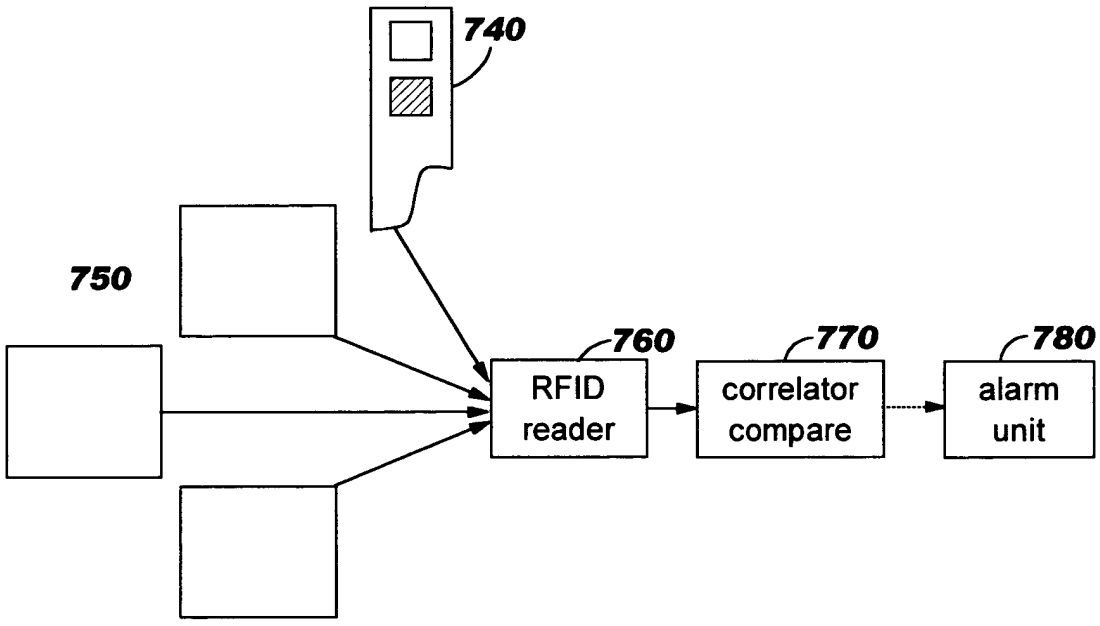
740
750
760
RFID reader
770
correlator compare
780
alarm unit

FIG. 8A

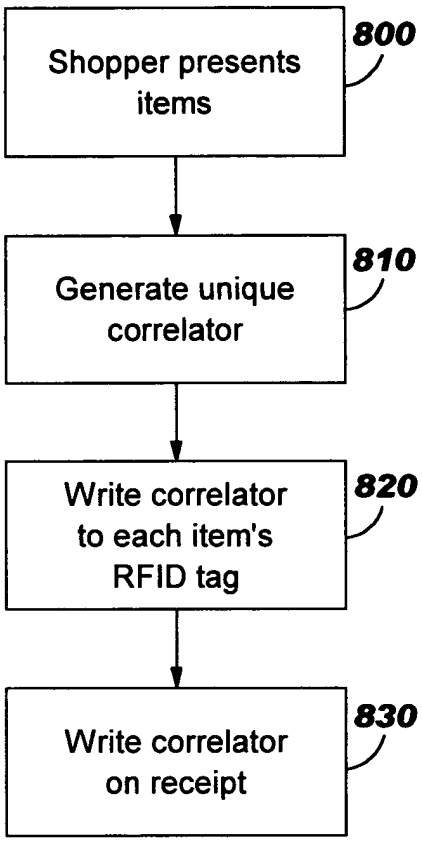
Shopper presents items
800
Generate unique correlator
810
Write correlator to each item's RFID tag
820
Write correlator on receipt
830

FIG. 8B

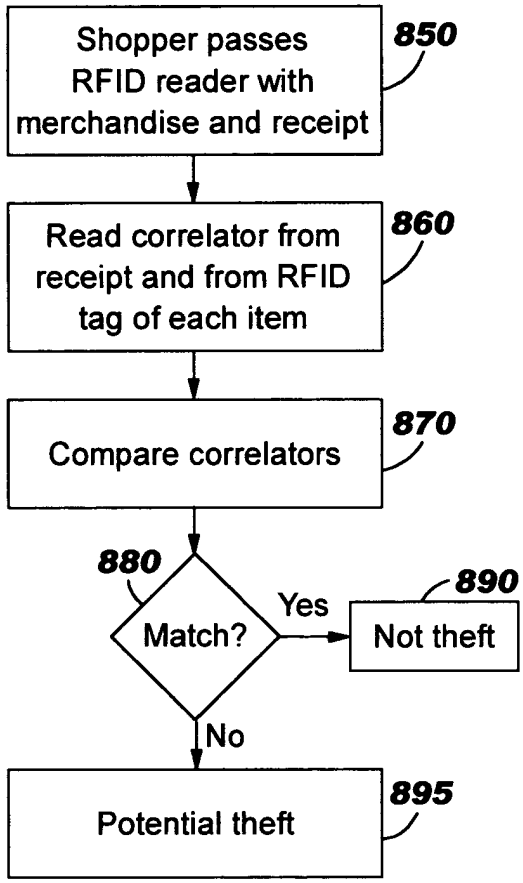
Shopper passes RFID reader with merchandise and receipt
850
Read correlator from receipt and from RFID tag of each item
860
Compare correlators
870
880
Match?
Yes
890
Not theft
No
Potential theft
895

FIG. 9A

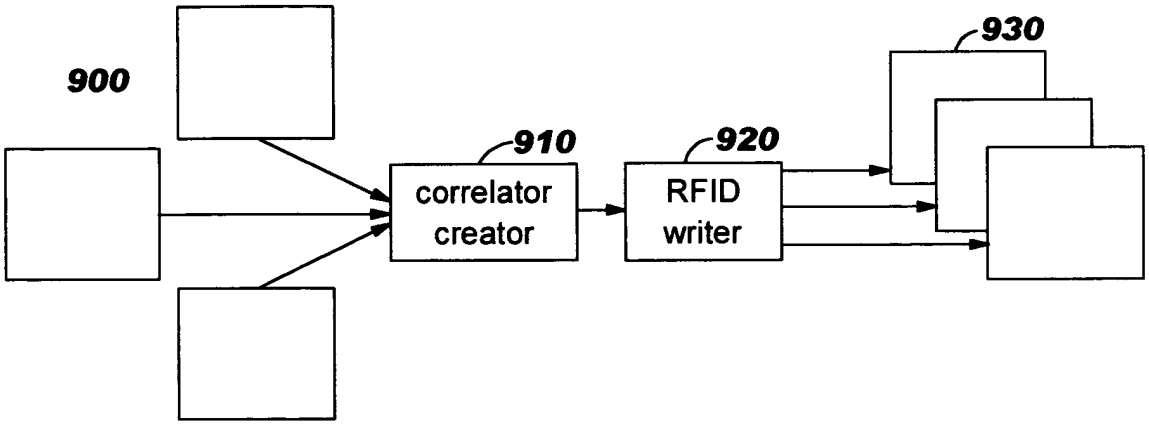
900
910
correlator creator
920
RFID writer
930

FIG. 9B

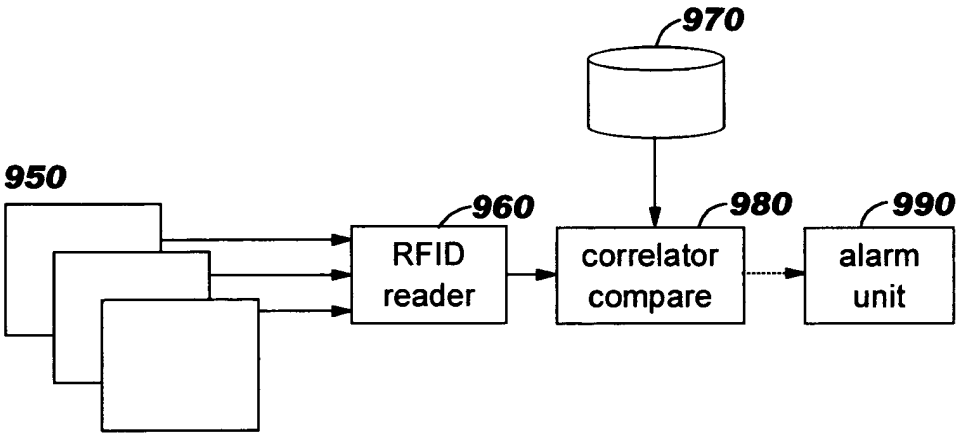
970
950
960
RFID reader
980
correlator compare
990
alarm unit

FIG. 10A

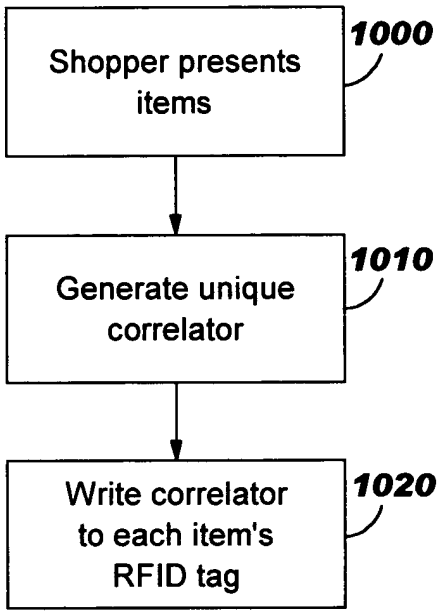

FIG. 10B

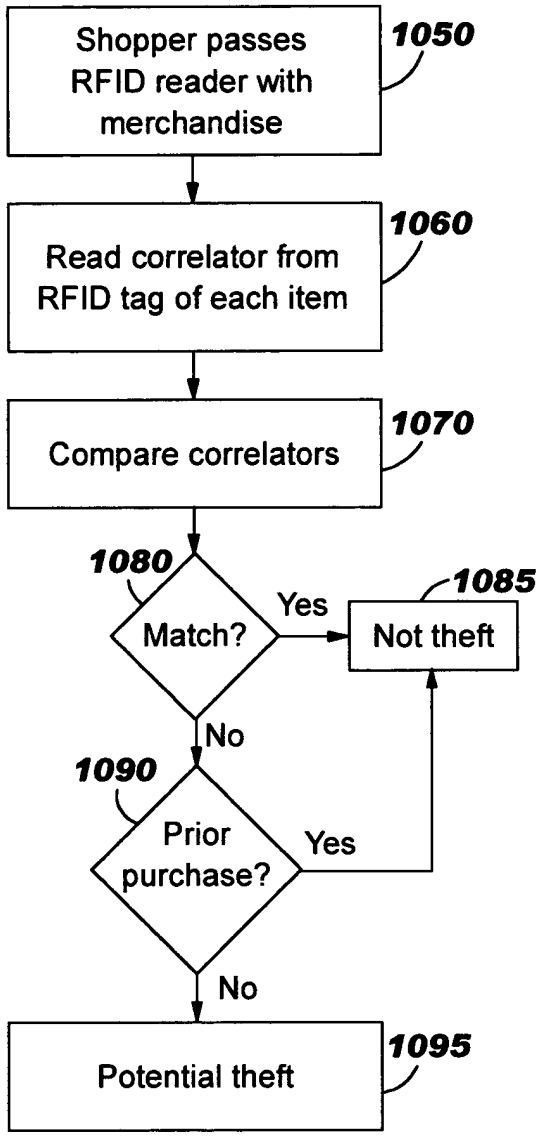

FIG. 11A

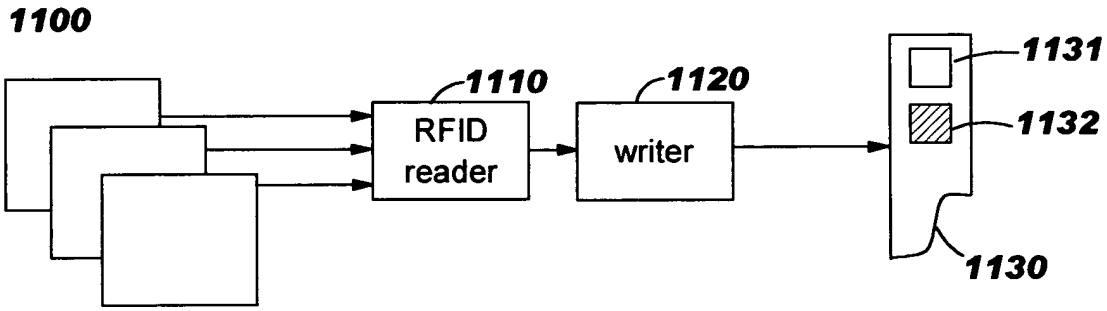

FIG. 11B

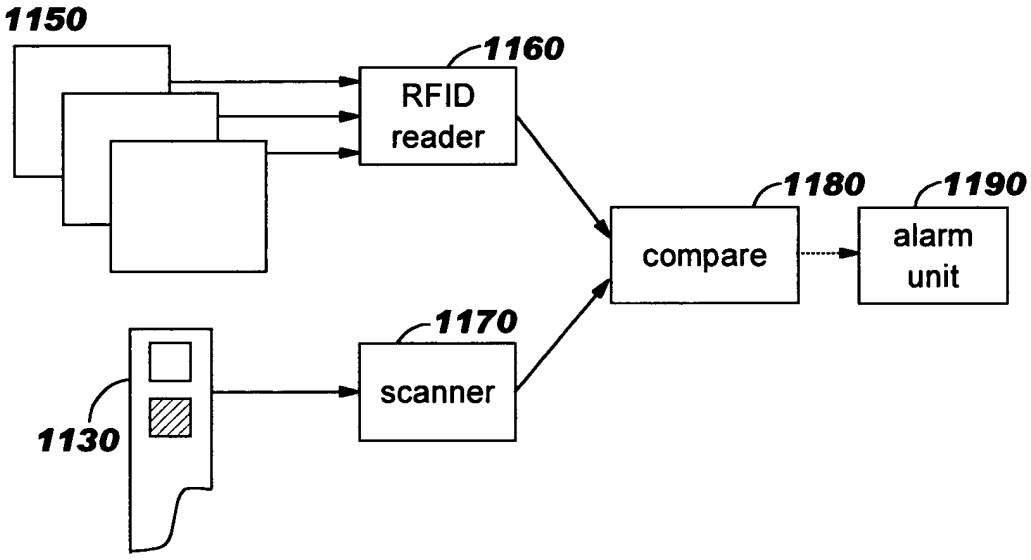

FIG. 12A

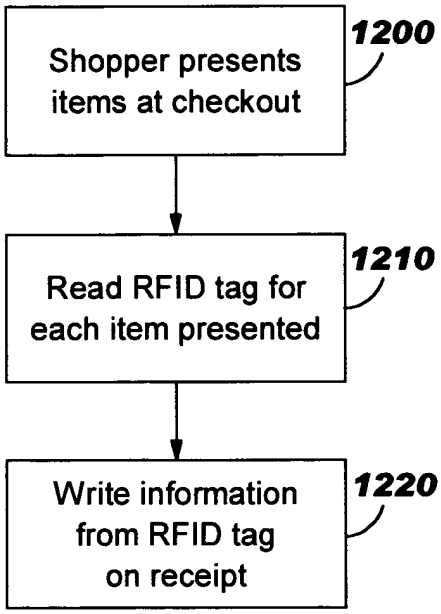
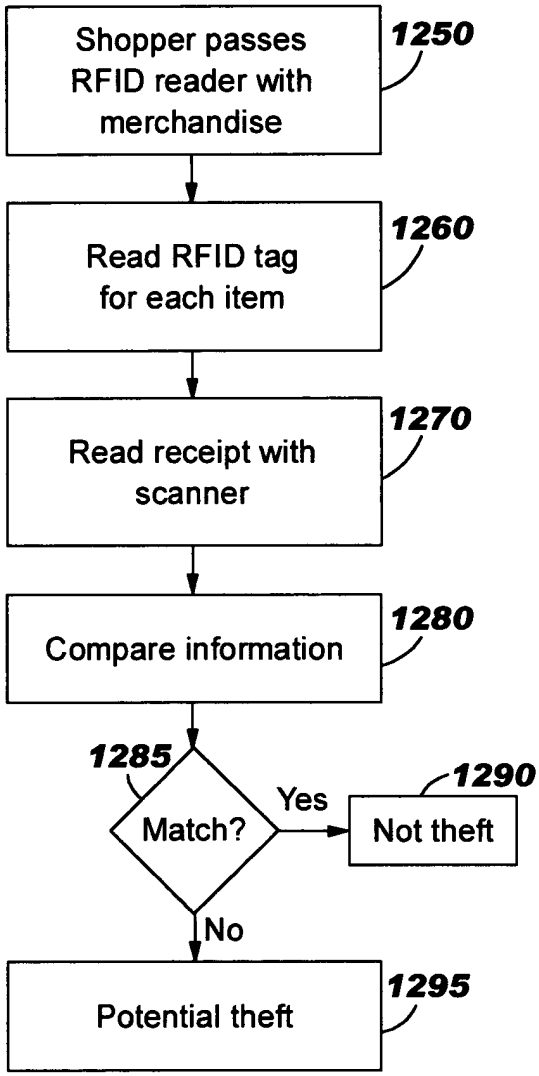
FIG. 12B